

ARCHITECTURE

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PLATES AND ILLUSTRATIONS.

ARCHITECTS OF TO-DAY.	
Mr. C. H. ISRAELS and Mr. J. F. HARDER, - - - -	2
CAMBRIDGE, ENGLAND, A Series of Sketches.	4
<i>Herbert Railton, Artist.</i>	
THE WARRINGTON, New York.	
Exterior, - - - - -	6
Plan, - - - - -	7
<i>Isaels & Harder, Architects.</i>	
THE SAINT HUBERT, New York.	
Exterior, - - - - -	6
Plan, - - - - -	7
<i>H. B. Mulliken, Architect.</i>	
HOTEL SOMERSET, New York.	
Exterior, - - - - -	8
Plan, - - - - -	9
<i>Clarence Luce, Architect.</i>	
HOTEL LE MARQUIS, New York.	
Exterior, - - - - -	8
Plan, - - - - -	9
<i>Buchman & Fox, Architects.</i>	
HOTEL FLANDERS, New York.	
Exterior, - - - - -	10
Plan, - - - - -	15
<i>Frederick C. Bowne, Architect.</i>	
HOTEL CUMBERLAND, New York.	
Exterior, - - - - -	11
Plan, - - - - -	14
<i>Mulliken & Moeller, Architects.</i>	
BEAUX ARTS COMPETITION.	
BRETTON HALL, New York.	
Exterior, - - - - -	Plate I
Plan, - - - - -	13
<i>H. B. Mulliken, Architect.</i>	
HOTEL MARYLAND, New York.	
Exterior, - - - - -	Plate II
Plan, - - - - -	12
<i>Frederick C. Bowne, Architect.</i>	
HOTEL STANLEY, New York.	
Exterior, - - - - -	Plate III
Plan, - - - - -	14
<i>Henry Anderson, Architect.</i>	
HOTEL SEVILLE, New York.	
Exterior, - - - - -	Plate IV
Plan, - - - - -	12
<i>Harry Allan Jacobs, Architect.</i>	
THE MARSEILLES, New York.	
Exterior, - - - - -	Plate V
Plan, - - - - -	12
<i>Harry Allan Jacobs, Architect.</i>	
HOTEL REGENT, New York.	
Exterior, - - - - -	Plate VI
Plan, - - - - -	12
<i>H. B. Mulliken, Architect.</i>	
THE LUCERN, New York.	
Exterior, - - - - -	Plate VII
Plan, - - - - -	12
<i>H. B. Mulliken, Architect.</i>	
THE DEVON, New York.	
Exterior, - - - - -	Plate VIII
Plan, - - - - -	13
<i>Isaels & Harder, Architects.</i>	
MANSIONS OF ENGLAND IN THE OLDEN TIME. Series I, Plate Nos. 23 and 24	
<i>Joseph Nash.</i>	

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PROFESSIONAL COMMENT.

BEGINNING with this issue ARCHITECTURE will publish selections from a brief history and critique of the Schools of Ornament by William Winthrop Kent, these being part of a treatise on Builders' Hardware by Mr. Henry R. Towne, President of the Yale & Towne Mfg. Co. We quote from Mr. Kent's introduction:

"He who takes up the study of ornament finds himself at once in a garden which he has formerly only viewed over the hedge. He cannot fail to pick some of the best things, and he cannot pick them all. Several of the following articles were first written some years ago, at the request of Mr. Henry R. Towne, to supply what had, in his and the writer's opinion, long been lacking, i. e., a brief description of the various styles which ornamentalists in all times and countries have adopted or evolved. To these few articles many more have recently been added and the series more fully illustrated. Done at intervals and as opportunity offered, although re-written several times, the writer is aware that they may be improved, but they must now go forth as they stand, and are offered not expecting that they will escape criticism, but in the hope that some students may find through them the path of designing a little less overgrown, and that the layman may be saved some perplexities. If they are used, not to perpetuate the styles, but to assist in devising ornament appropriate to the times in which it is used, they will have been of some value."

ARCHITECTURE believes that this series of articles will prove of great value, and not only to architects and designers generally, but to everyone who has felt the need of a tersely worded history of Ornament.

THE following is a copy of an advertisement taken from the Utica Daily Press, Utica, N. Y.:

"O'REILLY" the Royal Chef hit, is up to date and your home will be if you have C. M. GRAY, 62 Arcade, draw your plans.

THE peacful (?) Brooklyn Chapter is again protesting. This time it is against the competition for the Monument to the Prison Ship Martyrs which is to be erected in Fort Green Park in the City of Brooklyn. It appears that the association having this monument in charge originally gave out the information that this competition was to be an open one, and upon the basis of this program public money was contributed and popular subscriptions obtained. Now that the Committee has secured the funds, they have invited three competitors to submit designs, only one of whom is a Brooklyn man, and the Brooklyn Chapter after a number of Whereases has resolved "that in its judgment such proposed form of procedure is against all public policy on the ground that the expenditure of public funds of the nation, state and city should only be made for the design that is the result of the best competition and artistic efforts of the leading architects and sculptors of the country."

While the Brooklyn Chapter is protesting thus loudly against this competition, its members, who have the privilege, are vigorously attacking the present system of membership in the American Institute of Architects, and the black-balling of all candidates in the National body goes merrily but quietly on. It is expected that a vigorous effort will be made at the National Convention held in Washington to reform the present abuses, and it is hoped that the



Architects of To-Day.

MR. C. H. ISRAELS, NEW YORK.

New York Chapter, under the presidency of Mr. George B. Post, will adopt a less reactionary policy than it has in the past. As an indication of these illogical conditions a member of a chapter in one city may not be transferred to any other chapter without re-election in the local body, notwithstanding that this organization claims to be national in its scope. The reforms to be desired are: First, that some system be established by which the members of the chapter will be "ipso facto" members of the National body as implied by the designation adopted by the local bodies. Second, that such being the case, arrangements be made by which a member of one chapter may be transferred to another chapter with the consent of the officers thereof and without re-election. Third, should it then be the desire to honor a number of distinguished men by creating them "Fellows," these men could be elected to such fellowship at the annual convention.

NOTWITHSTANDING the fact that the names of three architects were to be selected for presentation to the Mayor for appointment upon the Fine Arts Committee at the December meeting of the Fine Arts Federation, the representation of the constituent architectural societies was unfortunately exceedingly small, only six out of sixteen of the delegates being present. The names decided upon were those of Arnold W. Brunner, Walter Cook and William A. Boring.

EVERY once in a while the New York papers publish photographs of the Cathedral of St. John the Divine, and at the same time state how much money must be raised before this superb cathedral can be finished. The construction of a building of

this character in this materialistic age is a new thing, and it naturally attracts a large amount of public attention. We recollect that when this building was conceived its projectors stated that it would typify the "religious spirit of the Nineteenth Century," but the slowness with which the money is coming in, compared to the millions being given by philanthropists to educational and other institutions, does not seem to speak very well for that spirit, if the ideas of the originators of this project were correct. The facts are that the religious spirit of this age cannot be typified in a cathedral. This is not a church building age. The great cathedrals were constructed under conditions in which the religious and commercial life of the people were so closely bound together that every man in a cathedral town felt a personal interest in the building of the great church. All contributed gladly to that church, they gave the best they had, in money, time or craftsmanship. Today the religious enthusiasm of the people shows itself in museums, great educational institutions, and asylums for the care of the unfortunate. The money that the philanthropists have given for the benefit of their fellow men naturally flows in these directions. The cathedral will undoubtedly be completed in good time, it will undoubtedly be an ornament to the metropolis, it will be a great architectural monument, but it will not represent the religious spirit of the age. To find the exemplification of that spirit one would have to look to Carnegie Libraries and Cooper Unions.

AS THE influence of the St. Louis Exhibition asserts itself it becomes more and more evident that the German exhibition of "Secession" work is to exert a positive effect upon our



Architects of To-Day

MR. J. F. HARDER, NEW YORK.

interior designs, and while we are borrowing motifs from Germanic countries it is interesting to note in some of the recent German magazines that considerable rural work in Northern Europe is in turn showing the decided influence of American designers. Some illustrations which we recently saw of the country dwellings in Helsingfors, Finland, look as if they might have been designed by American architects for our own watering places. In this same magazine printed in Bielfeld, Germany, attention is called to the effort on the part of German architects to construct new municipal buildings in accordance with the traditions of mediaeval towns of which they form a part. This magazine publishes a photograph of the town hall of its own city by the City Architect Richter, which although thoroughly adapted to modern uses looks as if it might have stepped out of the fourteenth or fifteenth century. Regulations have been adopted in some of the older German towns which are famous for their ancient character which allow the owners of old houses to demolish them only upon condition that they reproduce the old works on the same site.

Mr. Edw. Outwater, Builder, writes us: "I notice in December ARCHITECTURE a photogravure of the residence of Mr. J. W. A. Davis (Plate CII), in which I am credited as being the architect. Kindly correct same, as I am the builder of the house, and not the architect."

THE scare lines of the daily papers stating that the "loveliest dream that ever filled the human imagination" was about to fall through the weakening of its foundations, seems to be dispelled, and Architect Manfredi, who has been appointed by the Italian Government to preserve the Cathedral of St. Marks, Venice, now states that there is positively no danger. All of the urgent work has been in progress since last June, and he now has sufficient funds on hand to make the building perfectly safe. Signor Manfredi also states that "every exaggerated impression in Italy and abroad can therefore be dispelled. The great monument presents somewhat grave signs of weakness and disintegration, but thorough and efficacious restoration now begun will preserve it for a long time to come."

WHEN one looks over the Directory of Architects of a big city such as New York the casual observer is at a loss to understand just how so many practitioners find enough to do even in the city of many millions of inhabitants; but the fact is that there are a large number of offices in the large cities, and particularly in New York, where work for the metropolis itself is rarely done. As an indication of the wide field covered by New York architects, Messrs. Stoughton & Stoughton of New York have received the commission for the Canton Christian College, which is to be built on the Island of Honam, near Canton, China, and one of the firm is now traveling toward the Orient with the complete data of the first of the buildings, comprising a large architectural scheme which is to cover some sixty acres in extent.

THE announcement of the Current Magazines for the coming year should be very gratifying to the architectural profession. These magazines devote themselves exclusively to subjects which interest their readers, and a large number of periodicals will provide considerable number of articles on strictly architectural subjects, which seem to indicate that the thinking public take a lively interest in matters architectural. This is one of the best signs of the times.

American architecture can rise no higher than its source. Cultured designers can only be the result of a cultured sentiment. These programmes are the best evidences of progress.

WE who consider ourselves of the Anglo-Saxon race are apt to look upon the Latin races as unprogressive and unable to keep abreast of the times. It will therefore surprise most of us to learn through the "Review of Reviews" that the South American Republics, and particularly the city of Buenos Ayres, are developing new types of architecture, so that "each country has a style peculiar to itself, which without rising to the heights of absolute originality reflects nevertheless the character, customs and nature of the inhabitants." In order to encourage good work in this field, the municipality of Buenos Ayres has followed the example of Berlin and Antwerp and offers prizes each year for the most successful work of architecture.

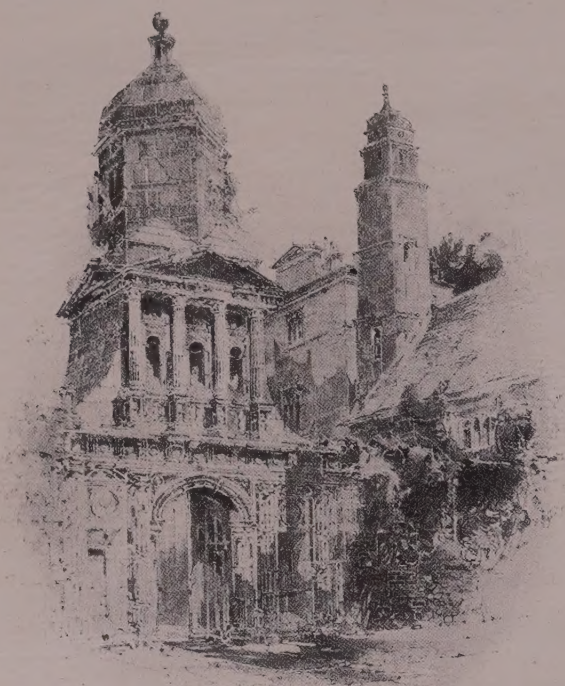
This up-to-date city is also making a most interesting experiment in order to ward off the inevitable tenement house problem which in our northern cities is one of the necessary evils incident to the growth of a great municipality. A bill has recently been introduced in the governing body of the city providing for the issue of bonds to the extent of \$20,000,000, to bear interest at 6 per cent., to be used in erecting workmen's houses in the neighborhoods where the growth of tenements is threatened. These houses are to be very small, and are to contain but three or four rooms, and each is to have a separate entrance from the street. They are to be erected in groups, a small number at a time, and as each group is completed, it is to be placed under the direction of a board appointed by the city government. Workmen may either rent these houses or become absolute owners by a system of monthly payments, from which the city does not expect to earn any more than operating expenses. The tenant is prevented by the regulations from sub-letting, and should he become six months in arrears in his monthly payments he loses all rights that he has acquired, unless special arrangements are immediately made for meeting the unpaid obligations.

UNREALIZED DESIGNS.

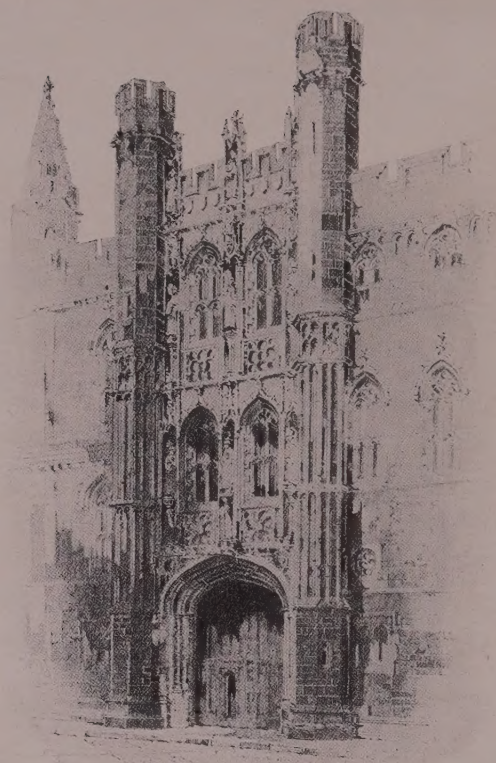
R. C. CHAPMAN.

BETWEEN the designs of the architect and their practical realization there is often a wide gulf of wasted effort and disappointed aims. Very few in the profession can really say their executed works give them unalloyed satisfaction. There are several elements at work which render the idea unattainable—the exigencies of site, of material, of estimate, of requirements of a practical nature, the inadequacy of the instruments and craftsmen employed in the execution. And yet the practical realization of a design may, after all, be the more honest expression, as it takes into account all the above elements, and is the natural evolution from all the factors. For we cannot consider building on the same plane as painting, where the painter seeks to express himself in form and color, and to hold the balance between idealism and realism. A building will always have to do with hard facts and utilities more or less, while a picture may be only the presentment of an idea or the personality of the painter. The craftsman's view of architecture is certainly one which places these limiting conditions of the art in a conspicuous position, or even exaggerates them in some cases: he takes the simplest constructional form in his design, exhibits the texture of

(Continued page 5.)



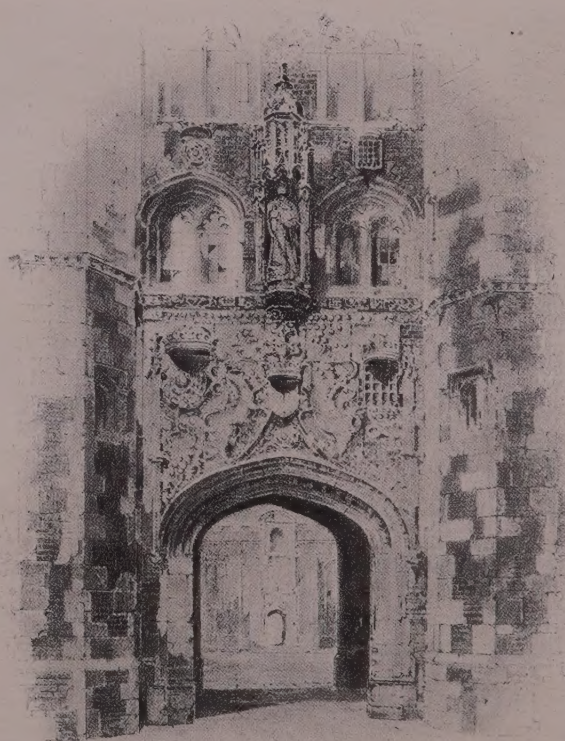
GATE OF HONOR, CAIUS COLLEGE, CAMBRIDGE.



GATEWAY TO OLD COURT, KING'S COLLEGE, CAMBRIDGE.



GATEWAY, TRINITY COLLEGE, CAMBRIDGE.



GATEWAY, ST. JOHN'S COLLEGE, CAMBRIDGE.

(Continued from page 3.)

his material, and even tries to show the *modus operandi* of his tools and workmanship. All these aims are more honest than the attempt to conceal construction, to idealize the form of doors and windows, roofs and ceilings; to make our buildings what we should like them to be, rather than what the circumstances compel us to make them. But we are not speaking of our architectural work in this sense; we are not now discussing the ideal and the real in art, but rather the architect's intentions as expressed in the conventions we call drawings, and the actual interpretation of them by the builder or workmen. There is no question here of the difference between the academic model and the practical in the general sense of those words, but simply of design and execution. In the architect's province and phrase, "*L'art pour l'art*"—"Art for its own sake"—has little meaning; every idea has to be brought to a practical test of usefulness. In this sense, therefore, we speak of the disparity between design and building, the inadequacy of the instruments used by the architect to be interpreted in the right sense by the builder. Drawings become the language by which the designer makes his intention known. But do they always properly convey his meaning? This is the question we have to consider. Is it not a fact verified by experience that with the raising of drawing to a professional accomplishment, the greater has been the disparity between the architect's intentions and their practical accomplishment? The trained and cultured draughtsman, brought up in the atmosphere of the drawing office or classroom, without any means or opportunities for learning the trades or inspecting works in progress, loses all touch with and sympathy for building. If he is preparing for the profession, he leaves all practical work to others—perhaps a partner—for he thinks on the principle of specialism or division of labor it is more profitable to confine himself entirely to the artistic side of his profession. He naturally begins to lose all hold of the trades, and falls back on conventional methods of expressing himself. He studies assiduously all the new crazes, whether "*Queen Anne*," Flemish Renaissance, the *L'Art Nouveau*, or the latest fad, but with little relation to the practical. If the builder cannot understand his details he thinks him an ignoramus; but in the end the builder gets the advantage, for he sees his opportunity either to do the work his own way or to claim an extra. Unless the designer can point out a mode of execution the practical craftsman scores, for he does it in a way which perhaps completely ignores the architect's idea. The workman is essentially conservative in his methods; if he does not know a new way of doing a thing it is exceedingly hard to convince him to try and do it, especially if the new way is more laborious or difficult. Unless the designer can show the workman how to carry out the work or detail in an expeditious and direct manner it is useless; so that, as a matter of fact, the architect's design, excellent as it is, and admitting of a practical solution if only he knew how to explain it, is shelved and some atrocious rendering of it introduced, which spoils the design, and may be a travesty of it. When the craftsman made their own drawings and models such a result could not happen. Again, if the detail supplied by the architect requires the cutting up or waste of more material than the builder has anticipated, it is replaced by another which takes less material and labor. In these ways professional draughtsmanship has increased the disparity between the design and the execution. As we have seen, wherever the object of draughtsmanship has been misunderstood, design suffers. Directly it is made an end, instead of the means of explaining the architect's design, all relation with real building is

lost. Thus it is that those who make drawing simply the means of showing what they want, who are content to adopt ordinary plans and geometrical representations, are carrying on the true tradition of the art, and are better interpreted by the practical tradesman. The architect's training in drawing is a subject for consideration. There is a prevalent notion in the profession, as well as out of it, that a young architect must be first of all a good draughtsman, that the more fluent he is in expressing himself in pencil the more capable he is for his vocation; but this is an error. Although many of our great architects have been accomplished draughtsmen, it will be found that few of them placed drawing in the first regard: they wielded their power over the pencil under the impulse of design and under the control of a knowledge of structural law and technical rules. Like archaeological knowledge, they regarded draughtsmanship rather as a "good servant, but a bad master." Experience teaches us that when we attain perfection in any art we are apt to set it up as an independent factor; so it has been with draughtsmanship in its relation to design, so it has been with sculpture and painting as subsidiary arts of architecture. Directly the laws of composition, and color, and technique were perfected, painting began to be studied for its own sake, and the mural painting, or fresco, gave place to the easel picture. Sculpture, which was first subsidiary to architecture, became, in course of time, a distinct art of modeling and carving statues and pedestal groups. When the unity and co-operation of the arts was broken up, such art began to be practiced for its own sake, each became a profession, and its relationship with the other arts ceased. Hence it is that sculpture and painting are no longer handmaids of architecture, and so also draughtsmanship has now developed into a special art, out of touch with the practical requirements of building. As an art of expression drawing is more limited in its sphere than the other arts; it is more imitative, and its highest form is perspective. In this independent sphere the artist can idealize; but we now look at drawing in its connection with architecture as an instrumental means of conveying the designer's thoughts. During the Middle Ages, and at a later age, the drawings used by the master masons and superintendents of buildings were very much more diagrammatic and rough than we are accustomed to. The examples we have seen are chiefly working drawings in line—the rules of perspective were unknown. Though perspective was not understood scientifically, there is evidence that the old artist craftsman had the power of "thinking in the solid," of realizing to his mind's eye three dimensions. In the old specimens of drawings we see objects and buildings drawn in a sort of rough perspective. Lines and curves were used to express design in the simplest manner; there was no attempt at shadowing, accentuation by touches and dots, blacklining, or other technical methods we use now. But the chief point was that in making a working drawing the designer was in touch with his work and material. In making such a drawing the designer should be mentally, if not actually, the craftsman also; the conditions and necessities of the material ever present to his mind; its very limitations suggesting new motives and stimulating invention, as it never fails to do when the designer and craftsman are one. But is this the case now? Such was the actual state of correspondence between the designer and craftsman in the earlier periods of art; but we have not the same relation now; it is more true to say the so-called designer is a draughtsman unconnected with the craftsman, who makes a drawing from precedents of old and modern work without any knowledge of or sympathy with the workman. The designer or "ghost,"

(Continued page 7.)



THE SAINT HUBERT, 120 WEST 57TH ST., NEW YORK.

H. B. Muliken, Architect.

(For plan see page 7.)

Wurts Bros., Photo.

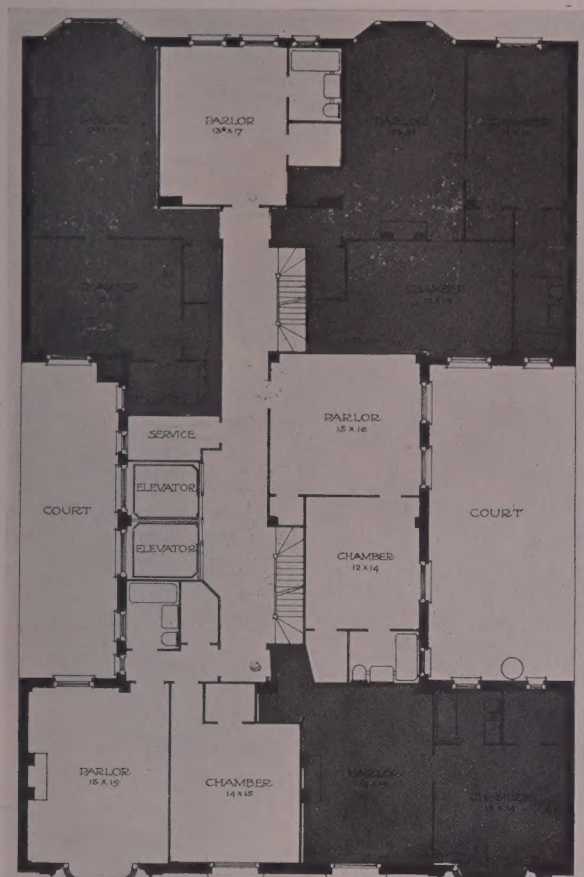


THE WARRINGTON, 161 MADISON AVE., NEW YORK.

Israels & Harder, Architects.

(For plan see page 7.)

Wurts Bros., Photo.



TYPICAL FLOOR PLAN, THE SAINT HUBERT. (See Plate Page 6.)

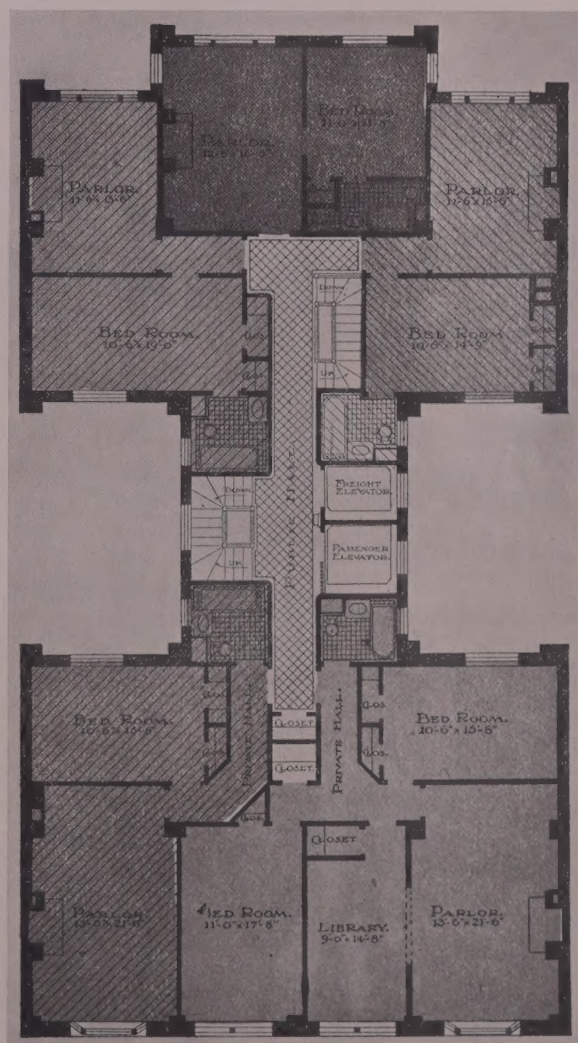
(Continued from page 5.)

whichever he is, does his designing in the office, it may be, hundreds of miles away from the building and the workman.

But the question we are discussing has a practical side. The architect complains that he is disappointed in the executed works. His design has not been realized, details on which he prided himself have been misinterpreted. Various causes has contributed to this result—the necessity for cutting down expense, ignorance or neglect on the part of the builder, and other conditions. But there are features of design which cannot be realized properly by the instruments in the hands of the architect—drawing and specifications. There are features of plan as well as of elevation that cannot be fully expressed. Only the able architect or the experienced artist can realize the plan of a building perfectly. And for this reason it does not represent a plane surface in reality, but only a horizontal section of walls as cut through by a plane, and in this respect it differs entirely from geometrical drawings, like those of the elevation and even the section. The plan of a building cannot be realized like the elevation, which actually represents an external finished side of the structure. A plan does not represent anything but the section of the walls just as they appear at the ground level. If it represented a view of the finished rooms, the average man could understand. As a matter of fact, few can realize from a plan the appearance and effect of the dimensions of rooms and spaces. To make it intelligible, the solidity of each room and wall would have to be shown. Thus not many persons—the architect, per-

haps, included—can form any idea of the space devoted to an entrance-hall and staircase, or any particular apartment. Without reference to height, it is impossible to form any notion of the proportions of a room by which to judge its effect. It is only when the first floor is finished and plastered that the plan in a really true sense can be realized. The result is that an architect and his client are sometimes disappointed with the size or proportions of certain rooms, which might have been obviated if the dimensions had been viewed in the concrete before the building had been commenced. The fault is this: that the subject has been looked at only in plan without any reference to height or to other conditions. Can we imagine any of our great buildings left to be determined by a plan on paper? No; ocular proof is demanded. Take the plan of a municipal building, in which the rooms vary in dimensions from a small office to the council chamber. The plan may be well devised and clever, yet if the architect has not considered the heights of the larger rooms dissatisfaction will be the result of their proportions. Instances of this kind are common. To a less obvious extent are elevations misleading unless they are studied with reference to the solid or to perspective. We all have seen the mistakes made in re-

(Continued page 9.)



TYPICAL FLOOR PLAN, THE WARRINGTON. (See Plate Page 6.)



HOTEL SOMERSET, 150 WEST 47TH ST., NEW YORK.

Clarence Luce, Architect.

(For plan see page 9.)

Wurts Bros., Photo.

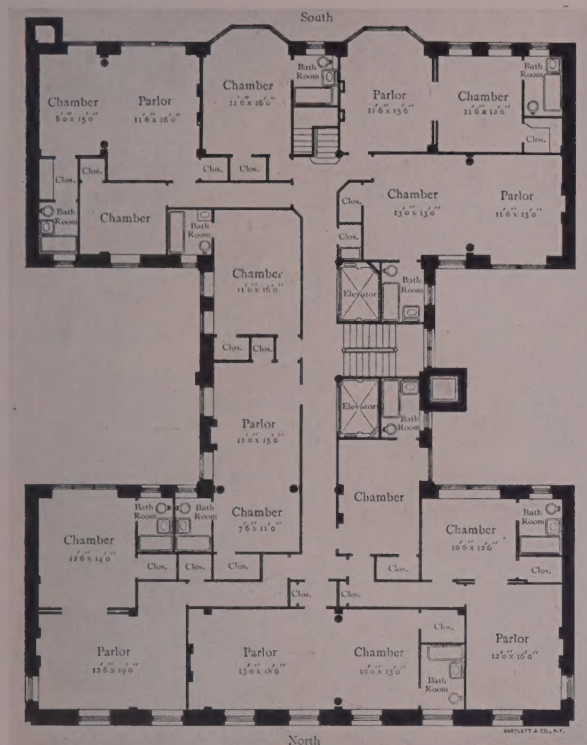


HOTEL LE MARQUIS, 16 EAST 31ST., NEW YORK.

Buchman & Fox, Architects.

(For plan see page 9.)

Wurts Bros., Photo.



TYPICAL FLOOR PLAN, HOTEL SOMERSET.

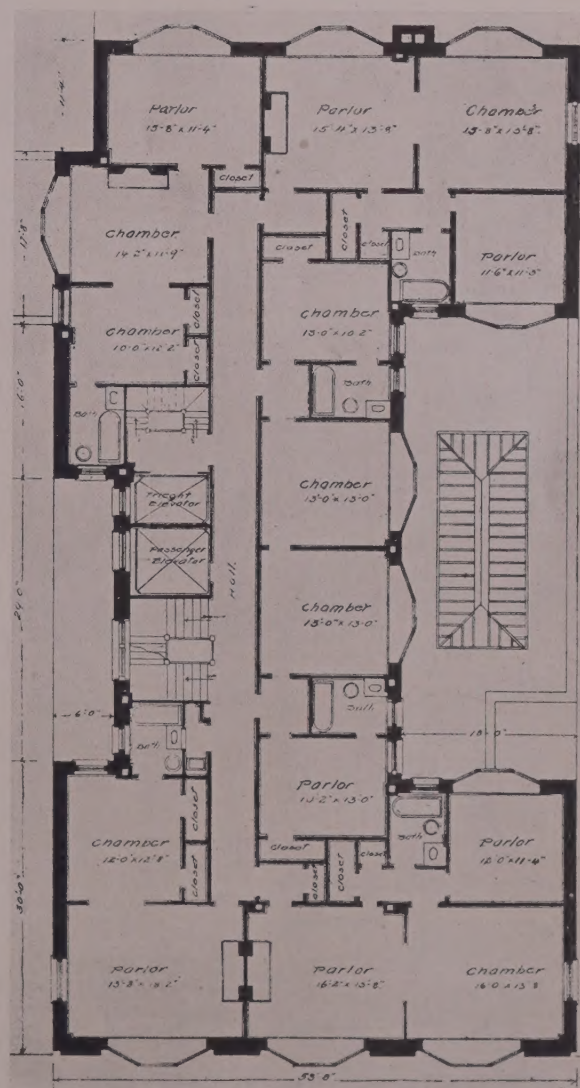
(See Plate Page 8.)

(Continued from page 7.)

spect to the height and profiles of features like towers and domes placed in a receding position. The elevation may in drawing appear perfect if these features are on the same plane with the front ; but if they spring from center of building, as over a central hall or staircase, they are lost to view or dwarfed when seen at a little distance from the front. Perhaps only the top of the dome is visible from a near view. Here it is we see the value of a model, or, better still, experimental trials when the building is up to its full elevation to determine the proper height these features should have. Under our present system of fixing all heights and dimensions in the drawings before building is commenced, these experimental trials cannot be made without expense for extra height. In lofty façades the upper windows may appear of good proportion in the elevation, but the foreshortening of the vertical dimensions will, in execution, give them a stunted effect. How many belfry windows in towers have been spoiled by not giving them extra height in elevation? The curvature or profile of domes is a still more common instance. A spherical dome, even when stilted, looks an oblate spheroid awkwardly depressed at a considerable elevation above the eye, and can be corrected only when the section partakes more or less of an equilateral pointed arch. Experience has proved that even this correction for curvature may be very much underrated in the case of domes of great altitude, and the only satisfactory way is to fix temporary ribs of the proposed dome on the finished tambour before deciding on the profile. It is just one of these features which cannot be satisfactorily determined by a geometrical elevation. Lanterns and spires appear also very different to the elevation of them when the architect has not made allowance for the perspective effect. Take, for instance, a broached spire ; the angle of the broach looks easy and graceful in the elevation. When the broached base is con-

structed the architect is dissatisfied with the appearance ; the faces, especially the hipped lines of the broach, seen at the angle, look awkwardly clumsy at their junction with the tapering lines of spire ; but little can be done to alter without reconstructing, and the consequent waste of executed masonry. The architect learns by hardly-bought experience, and takes care that in future the lines of broach are much steeper, or the effect, judged by battens fixed on the summit of tower before the spire is commenced, if time allows for such delay. A very common instance of neglect of the law of "vanishing lines" above the eye is the roof. The architect pitches his roof to an angle which satisfies him in elevation without any thought of perspective. When the roof is constructed, he is astonished and horrified to find it is faultily low or quite hidden, and only the apices of dormer gables can be seen, except from a considerable distance. Many other features will occur to the reader. All establish the rule that one cannot realize from geometrical drawings, or those made on the principle of being exactly opposite the eye at every point of surface. The draughtsman relies too much upon his drawings on one plane ; he satisfies only the surface appearance ; the

(Continued page 14.)



TYPICAL FLOOR PLAN, HOTEL LE MARQUIS.

(See Plate Page 8.)



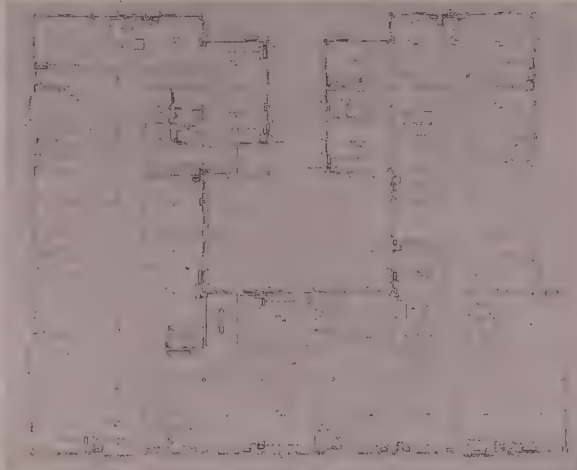
HOTEL FLANDERS, 133 WEST 47TH ST., NEW YORK.

(For plan see page 13.) Frederick C. Browne, Architect.

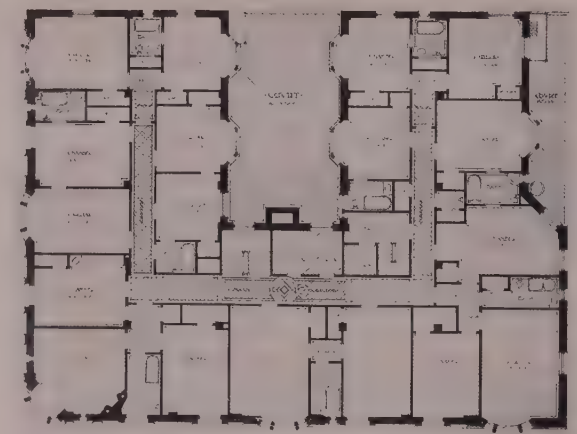


HOTEL CUMBERLAND, BROADWAY AND 54TH ST., NEW YORK.

(For plan see page 14.) Mulliken & Moeller, Architects.



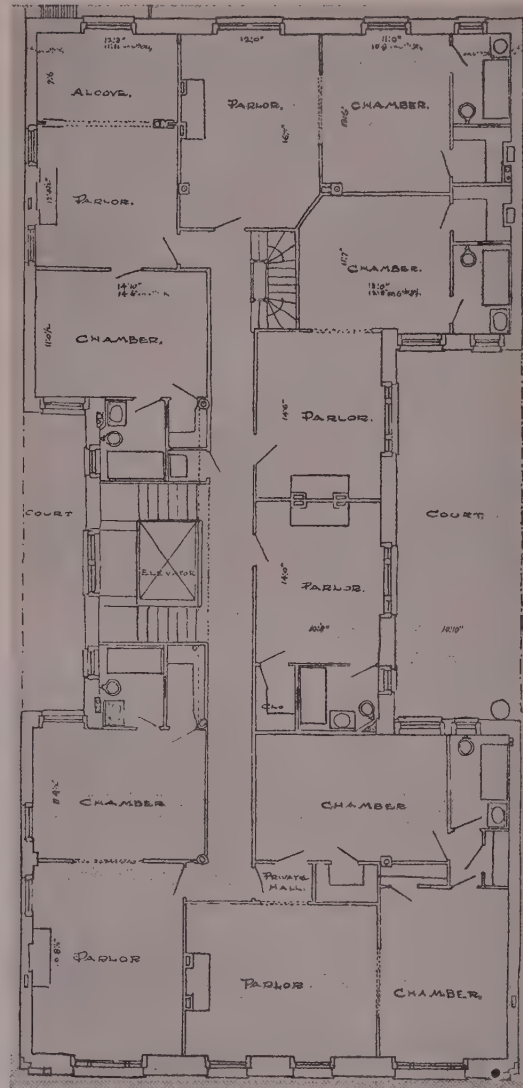
TYPICAL FLOOR PLAN, HOTEL MARSEILLES. (See Plate V.)



TYPICAL FLOOR PLAN, HOTEL SEVILLE. (See Plate IV.)



TYPICAL FLOOR PLAN, THE LUCERNE. (See Plate VII.)



TYPICAL FLOOR PLAN, HOTEL MARYLAND. (See Plate II.)



TYPICAL FLOOR PLAN, HOTEL REGENT. (See Plate VI.)



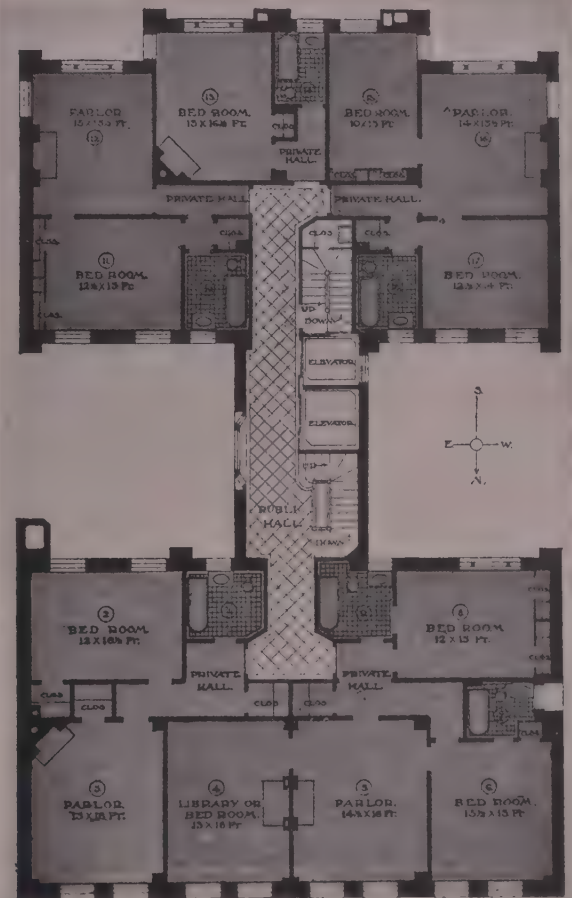
TYPICAL FLOOR PLAN, BRETTON HALL.

(See Plate I.)



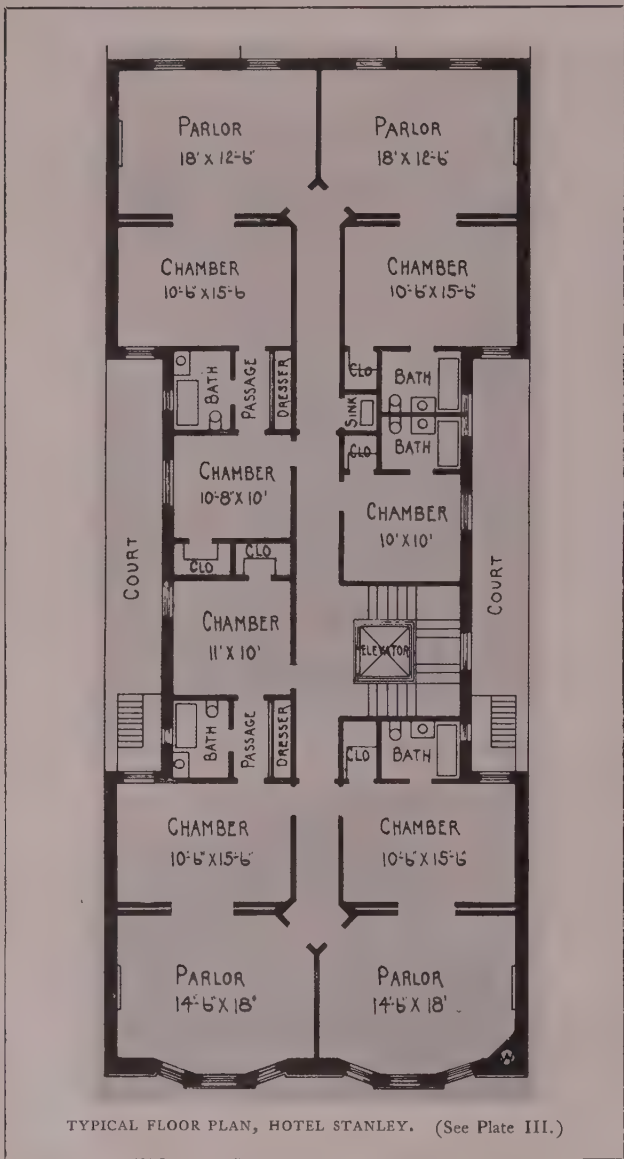
TYPICAL FLOOR PLAN, HOTEL FLANDERS.

(See Plate Page 10.)



TYPICAL FLOOR PLAN, THE DEVON.

(See Plate VIII.)



(Continued from page 9.)

effect of depth of receding planes is not considered in the elevation, so that many arrangements, like recessed window-jambbs, projecting details like cornices, breaks in the line of front are only found out as the building progresses, and when it may be too late to make the best of these details. Of these instances of unrealized design every one in the profession has experience. Recessed arches and reveals, projections to the façade, corbelled-out parts like gabled portions, projecting porches, corbells, and trusses, dormers set back from the plane of façade, recessed loggia arrangements, columnar projections and similar details are examples. A large class of unrealized results are due to the want of knowledge of the mechanical processes of building. In brickwork, for instance, the architect sometimes designs a feature like a chimney stack, without a practical knowledge of bond; when the work is executed it appears altogether different. The bricklayer has followed the detail as far as he can, but has put it into regular bond; the proportions are not the same as those intended; the cap moldings vary; the appearance is unsatisfactory. The result is partly owing to perhaps a want of understanding architectural detail, partly from the bricklayer adopting a more

usual and expeditious method of execution. How often a molded window or door-jamb betrays unacquaintance with the architect's intention! Where a quarter-round brick was meant, a hollow one is put, or plain leveled bricks. The effect is disappointing to the architect. A full-scale plan or section of the jamb is necessary, showing how the molded brick are to be bonded. Cornices and molded work of all kinds are subject to be wrongly interpreted because the specified bricks cannot be obtained or are not at hand. In all these instances the architect's duty is to select the particular molded bricks and see how they can be worked before completing his design. Ignorance of the mode of cutting stone economically is the cause of many mistakes in the execution of stonework. The designer draws a jamb molding or a cornice as if he were molding in clay or some plastic material; no attention is paid to the method of cutting the blocks economically to arrange the moldings and members so that they come within a certain inclosing plane; the result is, a considerable waste of material follows if the design is carried out. The mason varies the design, and, in so doing, spoils the effect. A knowledge of stonecutting operations, as that of cutting a square block diagonally so as to save stone and prevent waste, as in molded work and cornices, would prevent many erroneous and impractical detail drawings. How often the architect has to complain that the details for woodwork have not been properly executed! The builder or foreman has altered perhaps a detail or molding to bring it within the size of a batten or deal so as to avoid cutting to waste. Although certain scantlings are not imperative, they largely effect the execution of carpentry and joiners' work in a contract when the quantities are cut fine. Hence the value of the architect making himself familiar with the ordinary scantlings. So also many mistakes might be avoided in the details of ironwork if he mastered the technical processes used in the manufacture of iron. In short, in all the trades employed in building, the rules and operations ought to be observed in the designs of the architect before he can assure himself that they will be rendered intelligently.

In the scale of the architect's work frequent disappointments arise. Unless he has informed himself of the buildings near the intended site, their character, and scale of proportions, he must not be surprised to find that his elevations lose much of their dignity and importance.



THE SCHOOLS OF ORNAMENT.*

Copyrighted, 1904—Henry R. Towne.

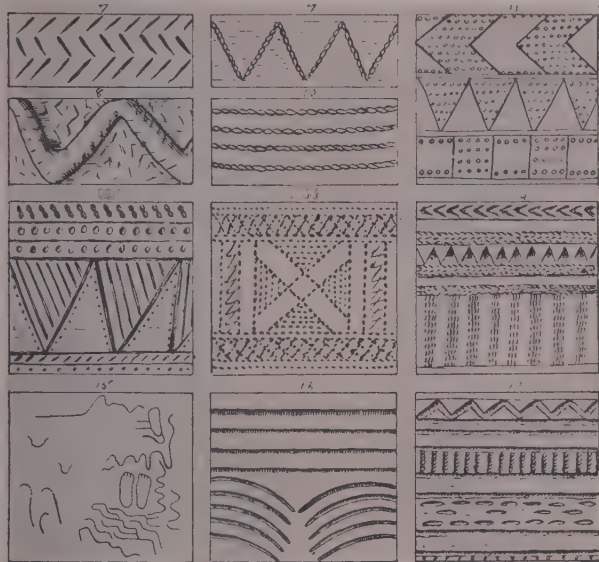
PREHISTORIC.

Art of the Cave Dwellers, Paleolithic and Neolithic periods.
Mound Builders and Aztecs.



Stone Implements.

HE decorative art of prehistoric man is most interesting in this, that certain first evidences of it are closer to nature than are any of the early examples of historical decoration which we possess. The drawings of the cave bear, mammoth and other animals found on stone, ivory and bone in the caves of Western Europe, are surprisingly direct and lifelike. They are not like sketches made by children, but by artists of ability, and as drawings of animal forms are



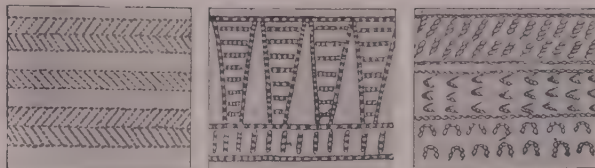
Geometric Decorative Designs in use in Western Europe during the Neolithic Period, some of which were continued into the Bronze Age.

astonishing. Pure prehistoric ornamental motifs other than animal forms are the Swastika, that mysterious, symbolic design found in almost all places where man has set his foot, and dots, zigzags or chevrons, circles and other rudimentary forms.



Ornaments used in Western Europe during Neolithic and Bronze Ages.

* A series of articles written by Mr. William Winthrop Kent, Architect, and forming part of "A Treatise on Locks and Builders' Hardware," by Henry R. Towne, President of the Yale & Towne Mfg. Co., and Past President of the American Society of Mechanical Engineers. John Wiley & Sons, Publishers. Price, \$3.00. It is the intention of the publishers of ARCHITECTURE to devote one number to a School. This book is profusely illustrated and contains more than 1100 pages, 4x6 1/4".



Ornaments used in Western Europe during Neolithic and Bronze Ages.

In America the ornament of the Mound Builders is seen on tablets of stone and on copper plates, etc. The further South we go toward Mexico and Aztec territory, the more elaborate and frequent becomes the ornament, and in the latter countries the objects of gold and pottery are sometimes very interesting examples of a period which however cannot be called savage or purely prehistoric, as we know something of the history of some of the early inhabitants, and that they were in many ways civilized. Numerous books treat of these discoveries, and certain authors are referred to in the list of references.

Very queer prehistoric ornaments are the slight gouge marks made by the finger nail on the soft clay vessels before baking, and a similar effect is seen again in the peasant carvings of France and Germany made by the steel gouge in imbricated patterns. The drill was early known by prehistoric man, and in Early Christian ornament also the Italian stone carvers used it largely to emphasize the modeling of frieze and capital.

One of the early potters' methods of making cooking utensils may have led to the use of the basket pattern. Early man made pots for boiling out of osiers, and covered them with clay to resist fire when filled with water. The clay taking the impression of the wicker work may have suggested the use of the pattern for decoration. It is known that Western Indians in the United States improved upon this and use certain grasses to make cooking utensils, and these not only stand fire but are also water tight.



Pendant, with Decoration of Zigzag Points.



Detail of Ornamented Cast Boss on Bell Mouth of Irish War Horn. Diameter 7 1/2 ins.

We find from various objects that man during the paleolithic, neolithic and bronze ages down to the present day, has decorated not only those articles which were intended primarily for ornament, but the utensils which were made solely for practical every-day use. The more we learn of prehistoric art through its relics and remains, the more we are instructed that the æsthetic sense of man demanded and received gratification almost coincidentally with the satisfying of his actual wants. The hunter and the artist were one. It was bound to be so, inasmuch as the keen powers of observation constantly fostered by the chase would not be denied the pleasure of recording its incidents, and from this pictorial art came the habit of imitating all forms in nature.

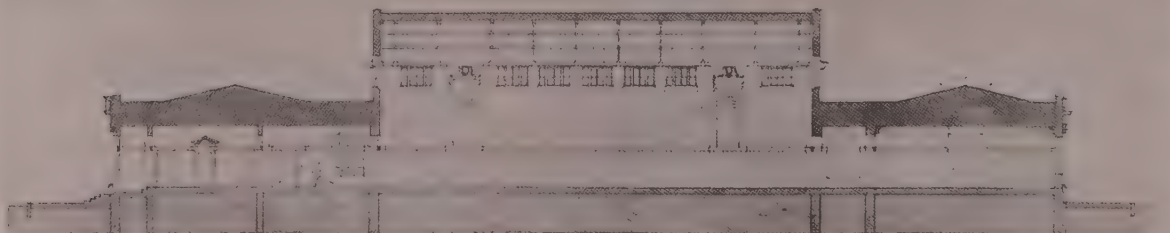
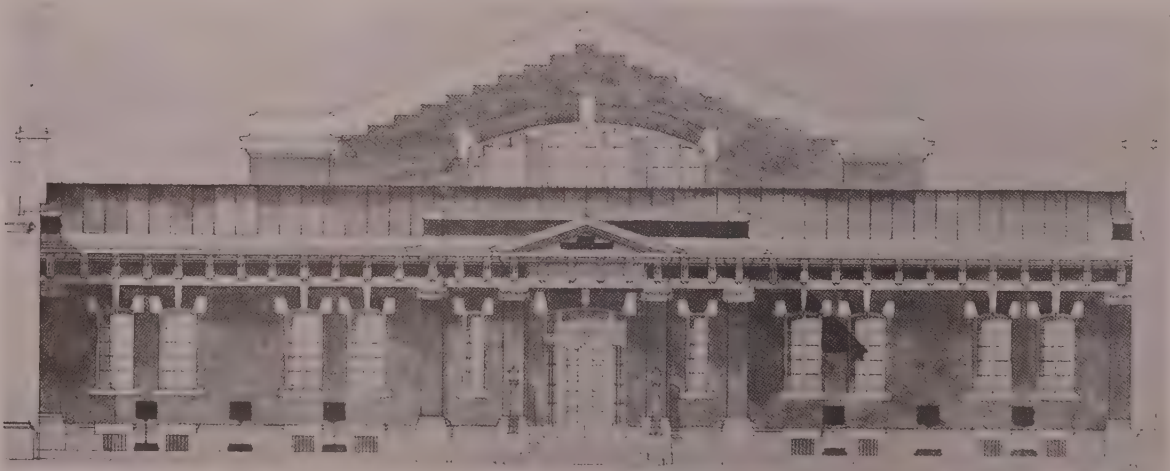


Prehistoric Swedish Bronze Axe with Spiral Ornament.



I MENTION. Elevation and Section.

R. EWALD, Atelier Washington University, St. Louis.



I MENTION, Elevation and Section.

E. H. YARDLEY, Atelier Cret, Philadelphia.

The Society of Beaux Arts Architects

INCORPORATED 1894.

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3 E. 33d St.

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OFFICIAL ORGAN - - ARCHITECTURE.

CLASS B—PLAN PROBLEM.

A NIGHT LODGING HOUSE.

The lot, one hundred feet in width, for the erection of this proposed building, is between party walls and fronts to the North and South on parallel streets two hundred feet apart.

The house, destined to provide suitable lodging for indigents over night, should comprise a most spacious room or hall, furnished with large benches in the nature of beds, to accommodate as many poor fellows as possible. In close proximity to this hall should be a good-sized toilet room, a general bathroom, with one or two isolated tubs and ten or twelve showers. This grouping should be preceded by an entrance vestibule with adjoining offices, directors' room, cloak room, etc.

In an independent grouping, yet in communication with the above, a large public dining room, with kitchen, store rooms, etc., should be located. This service should be accessible from a street as well as the preceding, and be accompanied by a waiting room, office, directors' room and one or two private toilet rooms.

A small infirmary, with two or three beds, should also be provided.

The composition should be extremely simple in character.

The architectural effects should be obtained by color in material and a good silhouetting of the masses.

Required—for the esquisse, a plan and section and an elevation of one of the fronts at a scale of $\frac{1}{16}''-1'$.

For the rendu—the most important elevation at a scale of $\frac{1}{4}''-1'$.

The other elevation, plan and section at a scale of $\frac{1}{8}''-1'$.

LLOYD WARREN,

Chairman Committee on Education.

REPORT OF JUDGMENT.

CLASS B—PLAN PROBLEM. A NIGHT LODGING HOUSE.

Jurors present—Messrs. Van Pelt, Cret, Murchison, Barber, Trowbridge, Corbett, Ewing, Chambers, Hornbostel, Lloyd Warren.

Atherton, H. P.	New York	Atelier Blair-Van Pelt	II Mention
Brown, W. J.	New York	Atelier Donn Barber	
Bruno, T. A.	New York	Atelier Donn Barber	Hors Concours
Clubb, Jr., A.	New York	Atelier Hornbostel	
Crane, J. J.	New York	Atelier Donn Barber	
Davis, Jr., J. W.	New York	Atelier Donn Barber	
De Mari, Walter	New York	Atelier Hornbostel	
Foley, J. J.	New York	Atelier Donn Barber	
Foult, E. V.	New York	Atelier Donn Barber	
Feirer, F. J.	New York	Atelier Hornbostel	Hors Concours
Goodell, R. S.	New York		
How, K. G.	New York	Atelier Hornbostel	Hors Concours
McGowan, J. C.	New York	Atelier Donn Barber	
McLaughlin, Donal	New York	Atelier Donn Barber	Hors Concours
Varian, L. E.	New York	Atelier Donn Barber	II Mention
Wendehack, C. C.	New York	Atelier Donn Barber	Hors Concours
Wieder, S.	New York	Atelier Hornbostel	II Mention
Ersline, Richard	Philadelphia	Atelier Cret	
Raiguel, W. O.	Philadelphia	Atelier Cret	II Mention
Trout, W. P.	Philadelphia	Atelier Cret	
Yardley, E. H.	Philadelphia	Atelier Cret	I Mention
Gideon, W. S.	Washington	Atelier Pietsch	

Murphy, F. V.	Washington	Atelier Pietsch
Noll, W. G.	Washington	Atelier Pietsch
Vorse, N. T.	Washington	Atelier Pietsch
Childs, A. R.	Providence	Atelier Homer
Holt, J. A.	Providence	Atelier Homer
Mason, M. D.	Providence	Atelier Homer
Beeson, E. W.	St. Louis	Atelier Washington Univ. II Mention
Dillard, Frank	St. Louis	Atelier Washington Univ. II Mention
Ewald, R.	St. Louis	Atelier Washington Univ. I Mention
Kolb, F. J.	St. Louis	Atelier Washington Univ. II Mention
Sibley, Ernest	Des Moines, Ia.	Atelier Proudfoot

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EDW. PEARCE CASEY,
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COMMITTEE ON ANNUAL EXHIBITION.

TO BE HELD FEBRUARY 12 TO MARCH 4, 1905.

Arnold W. Brunner, Chairman, 33 Union Square, West.
Frank E. Wallis, Secretary of Exhibition Committee, 215 West 57th St.; E. P. Casey, 215 West 57th St.

Sub-Committee on Architecture: D. Everett Waid, Chairman, 156 Fifth Ave.; Henry Hornbostel, 63 William St.; D. W. Langton, Fuller Building; Charles A. Rich, 35 Nassau St.; Edward L. Tilton, 32 Broadway.

Sub-Committee on Sculpture: Karl Bitter, Chairman, 24 East 21st St.; George T. Brewster, 121 East 17th St.; Charles Albert Lopez, 1947 Broadway.; H. A. MacNeil, College Point, L. I.

Sub-Committee on Decoration: Frank Vincent DuMond, Chairman, 27 West 64th St.; J. Mortimer Lichtenauer, 154 West 55th St.; Taber Sears, 96 Fifth Ave.; Louis D. Vaillant, 152 West 55th St.

Jury of Selection: Karl Bitter, Edwin H. Blashfield, Arnold W. Brunner, Frederic Crownshield, Frank Vincent DuMond, Isidore Konti, Charles F. McKim, H. A. MacNeil, Robert Reid, Augustus Saint Gaudens, James Knox Taylor, S. B. P. Trowbridge.

ANNUAL COMPETITION FOR THE GOLD AND SILVER MEDALS.

The Gold and Silver Medals will be presented to the competitors submitting the designs placed first and second, respectively.

A VILLAGE BLOCK IN A SMALL COUNTRY TOWN.

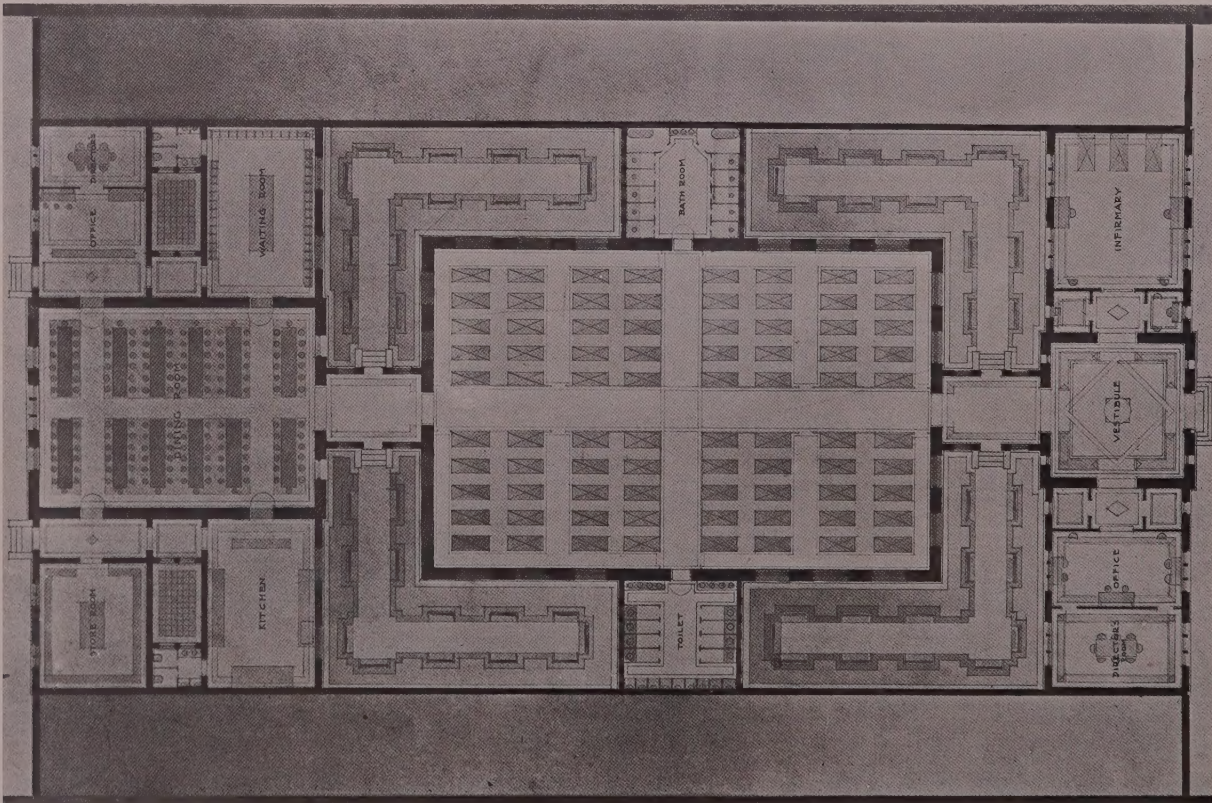
Some members of a small village community wish to erect a structure on a rectangular level corner plot, with 150 feet on the main street of the village, and 60 feet on a side lane to the right of the plot.

The surrounding country is mountainous and stony. The building can be constructed of stone, or wood, or stucco, or a combination of these materials, and should be picturesque in its architecture.

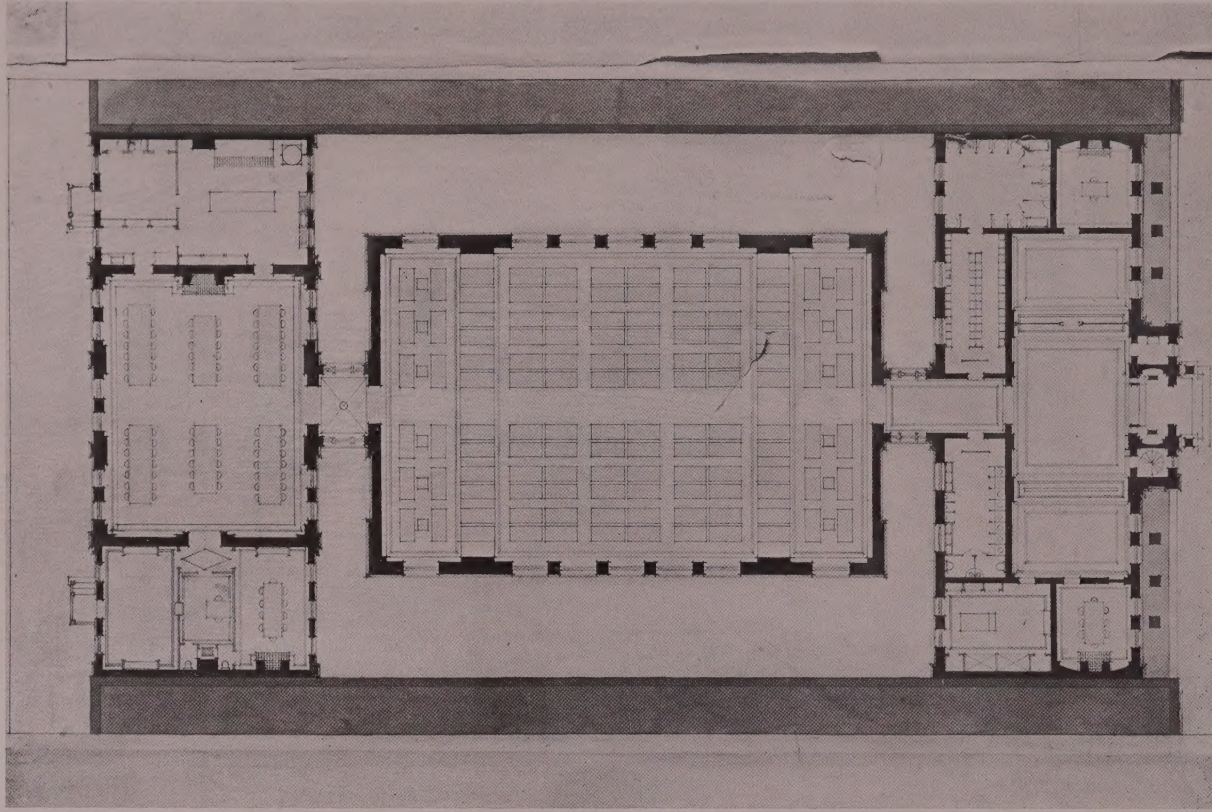
CONDITIONS.

The ground floor is to have a post office, a bank, one or more

(Continued page 19.)



I MENTION. Plan. R. EWALD, Atelier Washington University, St. Louis.



I MENTION. Plan. E. H. YARDLEY, Atelier Cret, Philadelphia.

BEAUX ARTS COMPETITION. CLASS B. A NIGHT LODGING HOUSE.

(Continued from page 17.)

stores, and room for a hose company, which is to have a tower for hanging hose, this tower can be treated as a clock tower with belfry.

Second story is to be offices with toilets.

Third story, which may be partly under roof, is to contain a large hall with dressing rooms, a small dining room with caterers rooms, and a stage with all the necessary adjuncts.

The building is to have one large and ample staircase, and toilets where necessary, and an exterior or interior secondary staircase from hall.

DRAWINGS.

A front and side elevation to the scale of $\frac{1}{8}$ ft. to the inch, to be rendered in water color with shadows cast.

Plan of the ground floor and third floor, and a section to the scale of $\frac{1}{8}$ ft. to the inch, to be rendered in ink line.

All drawings to be on white Whatman paper, 26 inches high by 33 inches wide, mounted on gray card board 32 by 39 inches.

PRESIDENT'S PRIZE.

OPEN TO MEMBERS OF THE ARCHITECTURAL LEAGUE ONLY.

The President of the League offers a bronze medal to be awarded the best design for a book plate for the library of the League.

The design must be in line or plain black wash, suitable for direct reproduction and may be of any shape, at the discretion of the designer, but the completed plate should not exceed three inches in its greatest dimension. The drawing must be in black ink upon white paper and shall be three times larger in each dimension than the engraved plate. It should bear, in legible lettering, the inscription, *Ex Libris*. The Architectural League of New York.

The League reserves the right to purchase the premiated design at a price to be agreed upon between the League and the designer.

HENRY O. AVERY PRIZE.

A prize of fifty (\$50.00) presented by Samuel P. Avery, Esq., will be awarded for the best design for a flower box.

Full size model for a rectangular terra cotta flower box, suitable for use on a porch between columns.

The front and the two ends to be decorated.

Models may be presented either in plaster or in composite clay.

Size, 3 feet long, 12 inches wide and 10 inches high, inside.

Committee: Henry Hornbostel, Chairman, Kenyon Cox, Herbert Adams.

BOOK REVIEWS.

ITALIAN VILLAS AND THEIR GARDENS. EDITH WHARTON. ILLUSTRATIONS BY MAXWELL PARRISH. THE CENTURY COMPANY, NEW YORK. 1904. \$6.00.

This work of Mrs. Edith Wharton and Mr. Maxfield Parrish is truly a sumptuous book, a volume to delight in, every day more and more. For those who love travel, and especially the fascinations of Italy, there are full and vivid descriptions of all the more notable Italian villas. For those interested in "garden-magic" Mrs. Wharton has written chapters which are helpfully suggestive. And the illustrations, fifty in number, are of rare beauty and interest. Some are exact reproductions of Mr. Parrish's original paintings in oil; others show in black and white Mr. Parrish's work; and, to make the whole complete, there are still other illustrations, in black and white, from photographs. Quoting from the text of the book, "The traveler returning from Italy, with his eyes and imagination full of the ineffable Italian garden-magic, knows vaguely that the enchantment exists; that he has been under its spell, and that it is more potent, more enduring, more intoxicating to every sense, than the most elaborate and glowing effects of modern horticulture; but he may not have found the key to the mystery. Is it because the sky is bluer, because the vegetation is more luxuriant? Our mid-summer skies are almost as deep, our foliage is as rich, and perhaps more varied; there are indeed not a few resemblances between the North American summer climate and that of Italy in spring and autumn. Some of those who have fallen under the spell are inclined to ascribe the Italian garden-magic to the effect of time; but wonder-working as this undoubtedly is, it leaves many beauties unaccounted for. To seek the answer one must go deeper; the garden must be studied in relation to the landscape." "Italian Villas and Their Gardens" is an ideal book.

THE Private Branch Exchange System of supplying TELEPHONE SERVICE is particularly adapted to the requirements of LARGE HOTELS and APARTMENT HOUSES.

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THE ARCHITECT'S DIRECTORY AND SPECIFICATION INDEX—1904-1905. WM. T. COMSTOCK, NEW YORK. \$2.00.

This is the sixth annual edition of a very carefully selected list of the Architects in the United States and Canada. To this has been added other features, such as the latest schedule of architect's charges, a list of architectural societies and membership, the names and locations of architectural schools, architectural periodicals, etc.

REINFORCED CONCRETE. CHARLES F. MARSH, ASSOC. M. INST. C. E., ASSOC. M. INST. M. E. D. VAN NOSTRAND COMPANY, NEW YORK. 1904. CLOTH, \$7.00.

This subject has been the topic for much discussion during late years, and the valuable treatise which Mr. Marsh has given us will be the means of settling many differences of opinion as to the purpose, practical workings and definite accomplished results of the combination of steel and concrete. The systems of reinforced concrete construction have been heretofore but little known in the United States. In Europe, and especially France, this construction has met with much favor among architects and builders, has been well tried and well proved. All the subject matter has been so arranged as to facilitate reference as much as possible, and the several systems used up to the present have been placed in alphabetical order, so that any particular one may be readily found when desired. It is believed that the part relating to the calculations covers all forms of construction in as concise and clear a manner as possible. The formulæ for slabs and beams, although giving somewhat smaller dimensions than those recommended by M. Christophe in *Le Beton Arme* (a standard French work on the subject), are still well on the side of safety, and it is hoped that the tables and diagrams may be of use in saving the labor necessary in making the requisite calculations. The subject of arches has been dealt with in as condensed a form as possible, compatible with a clear demonstration of the methods adopted for locating the pressure curve. The graphical method for finding the tresses to be resisted in domed coverings is believed to be entirely new, and greatly simplifies the treatment of these structures. The text is illustrated with over five hundred plates, drawings and diagrams, and accompanied by tables, calculations and data deduced from experimental research.

COMMENT.

FEW men influenced American architecture to the extent of the late H. H. Richardson. It is, therefore, most unfortunate that the city of Pittsburg contemplates the radical alteration of the Allegheny Court House, which is considered one of Mr. Richardson's best works. The designs published in the Pittsburg papers showing the contemplated changes indicate that the building is to be practically turned into a sky-scraper, and that the beautiful tower is to be heightened in proportion. Without questioning the merits or demerits of this design, the scheme in itself is most unfortunate, as the building is a landmark in the progress of our national design. To the end that the Pittsburg authorities may be induced to let the

building severely alone both the Fine Arts Federation and the New York Chapter of the American Institute of Architects have passed resolutions protesting against the proposed changes.

INGENIOUS methods of advertising are somewhat common in the building trades, but it has been left to a manufacturer of a patented floor to adopt one of the most subtle forms for securing attention that has come to our notice. Recently a large number of architects received a typewritten and signed letter from a prominent firm of tailors, stating that they wished to use a certain material, and stating that as they understood it gave peculiar results they wished the architects' opinion as to its value. A careful examination of the letter showed it to be a mimeograph copy, but it certainly directed the attention of the architects to the particular material in a personal way seldom obtained in advertising, particularly as the communication was of such a character that ordinary courtesy demanded an answer.

IT is somewhat strange in this area of fireproof materials to find the professional charity worker pleading for the adoption of mill construction in the building of institutions. The December *Charities*, which naturally speaks with authority for the professional philanthropist, urges the adoption of this New England system in hospitals and asylums, notwithstanding that all of the up-to-date building laws throughout the country compel buildings of this character to be built fireproof, and do not recognize slow-burning construction as coming under that head. Further than this, the short spans required by the use of mill construction absolutely prevent the designer obtaining the large open spaces so necessary for such institutions, although many of the points insisted on by Mr. Edgar Atkinson's system, such as the isolation of the stairs and the prevention of openings in the floors, are ones which commend themselves not only to the architects of buildings of this class, but to all careful men who give the fire hazard the proper amount of consideration in their practice.

THE millenium seems to have arrived in New York City when an organization of business men such as the West End Association has a grievance against a public building because in its opinion it is "ugly and vilely conceived from an architectural standpoint, and out of all harmony with the neighborhood." Yet such is the case; and this Association is using vigorous measures to have alterations made to the Seventy-second Street Sub-Way Station, on purely æsthetic grounds.



BUFFALO STATE INSANE HOSPITAL, BUFFALO, N. Y.

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